GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Mobile Technologies, PG_00048668
Field of study	Electronics and Telecommunications

Date of commencement of studies	February 2026	**Academic year of realisation of subject**	2026/2027
Education level	second-cycle studies	**Subject group**	Optional subject group Specialty subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	**Mode of delivery**	at the university
Year of study	1	**Language of instruction**	Polish
Semester of study	2	**ECTS credits**	2.0
Learning profile	general academic profile	**Assessment form**	assessment
Conducting unit	Department Of Geoinformatics -> Faculty Of Electronics Telecommunications And Informatics -> Wydziały Politechniki Gdańskiej		

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Przemysław Falkowski-Gilski
	Teachers	dr inż. Przemysław Falkowski-Gilski

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	30	4.0	16.0	50

Subject objectives	The aim is to develop a computer engineer who has knowledge and skills in the use of tools for creating mobile applications . He is prepared to work effectively in development teams in IT companies and ICT as well as in education, where their knowledge and skills will be used with the principles of legal and ethical awareness and the social problems of computerization.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_W03] knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum	Students are able to choose appropriate methods, tools, as well as hardware and software layer, depending on the specificity of the analyzed problem.	[SW3] Assessment of knowledge contained in written work and projects
	[K7_U03] can design, according to required specifications, and make a complex device, facility, system or carry out a process, specific to the field of study, using suitable methods, techniques, tools and materials, following engineering standards and norms, applying technologies specific to the field of study and experience gained in the professional engineering environment	Students are able to properly design and implement the software layer of a mobile application.	[SU4] Assessment of ability to use methods and tools
	[K7_W04] knows and understands, to an increased extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or other elements or programmable devices specific to the field of study, and organization of work of systems using computers or such devices	Students are able to identify key elements of computer systems architecture, in particular mobile devices.	[SW1] Assessment of factual knowledge
	K7_K02	Students are able to use appropriate tools and metrics to evaluate designed solutions.	[SK3] Assessment of ability to organize work

Subject contents	Android basics - architecture, availabale services, e.g. C2D, push notifications, etc. Android API basics - Manifest file, Activity, Service, Content Provider and others Basics of Windows 10

Prerequisites and co-requisites	Basic Java, as well as C# and C++ programming language skills Basics of Object oriented programming

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Laboratory	50.0%	50.0%
	Lecture	50.0%	50.0%

Recommended reading	Basic literature	Hellman E., "Platforma Android – Nowe wyzwania", Helion, 2014. Android developers Guide - http://developer.android.com/index.html Microsoft Developer Network http://ww.msdn.com
	Supplementary literature	Additional materials available online
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	The development of a simple application of digital map on mobile device equipped with Android system. Creating the Android application using web-service
Work placement	Not applicable

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